REMARKS

Summary of the Office Action

In the Office Action dated January 13, 2003, claims 11 and 12 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-2, 4-5, 7-8, and 11-12 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by PCT International Application of Osa et al. published as PCT document No. WO99/12068, (hereinafter "Osa"). Claims 3 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Osa. Claims 6, 10, 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Summary of the Response to the Office Action

Applicant has amended claims 11 and 12 to comply with the requirements of 35 U.S.C. § 112, second paragraph. Applicant has amended claims 1, 2, 5 and 6 to differently describe the invention. Applicant has cancelled claims 4, and 7-9 without prejudice or disclaimer. Applicant has added new claims 15-17 to differently describe the subject matter of the invention. Accordingly, claims 1-3, 5-6 and 10-17 are presently pending in this application.

The Rejections under 35 U.S.C. § 112, second paragraph

Claims 11 and 12 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action asserts at page 2 that

the definitions of dH and dL are incomplete as they only define the distance from a starting point but not to a finishing point.

Applicant has amended claims 11 and 12 to comply with the requirements of 35 U.S.C. § 112, second paragraph. Specifically, Applicant has amended claim 11 to recite "dH is a distance along the optical axis from the center of the lens surface of the condenser lens for the high-magnification objective lens to a deflecting surface of a deflecting element disposed in the position of said shield element," and to recite "dL is a distance along the optical axis from the center of the lens surface of the condenser lens for the low-magnification objective lens to the deflecting surface of the deflecting element disposed in the position of said shield element." Applicant has amended claim 12 to recite "dL is a distance along the optical axis from the center of the lens surface of the condenser lens for the low-magnification objective lens to a deflecting surface of a deflecting element disposed in the position of said shield element." Applicant respectfully submits that claims 11 and 12, as amended, fully comply with the requirements of 35 U.S.C. § 112, second paragraph. Accordingly, Applicant respectfully requests that the rejections of claims 11 and 12 under 35 U.S.C. § 112, second paragraph, be withdrawn.

The Rejection under 35 U.S.C. § 103(a)

Claims 3 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Osa. Applicant respectively traverses this rejection for the following reasons.

Independent claim 3 recites a stereomicroscope combination that includes an illumination unit including a shield element, a zoom lens, and an objective lens in an arrangement where the "shield element is disposed in a position conjugate to an entrance pupil or in the vicinity of this entrance pupil of said objective lens when said zoom lens exhibits a lowest magnification."

Applicant respectfully submits that Osa does not teach or suggest the claimed stereomicroscope combination including at least these particular features.

In the instant invention as recited in claim 3, when the zoom lens is in the state of the lowest magnification, the shield element is disposed in a position conjugate to the entrance pupil of the objective lens. Moreover, this arrangement is also used in the case of high magnification. Accordingly, Applicant respectively submits that, in the instant invention as recited in claim 3, a single shield member is used for both low magnification and high magnification states of the zoom lens. On the contrary, as depicted in Figures 36 and 37 of Osa, there are four shield members 95a to 95d: shield members 95a and 95b are used for high magnification, and shield members 95c and 95d are used for low magnification.

In view of the foregoing remarks, Applicant respectfully asserts that Osa does not teach or suggest each feature of independent claim 3. As pointed out in MPEP § 2143.03, "[to] establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." Thus, Applicant respectfully submits that claim 3 is in condition for allowance as being patentable over Osa. Claim 9 has been cancelled. Accordingly, Applicant respectfully requests that the rejection of claims 3 and 9 under 35 U.S.C. § 103(a) be withdrawn.

The Rejection of Claim 5 under 35 U.S.C. § 102(b)

Claim 5 stands rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Osa.

Applicant has amended claims 5 and 6 to differently describe the invention. To the extent that this rejection could be reapplied to claim 5, as newly amended, it is respectively traversed as follows.

Independent claim 5, as amended, recites a stereomicroscope combination that includes an illumination unit including a shield element, a first condenser lens, and a second condenser lens in an arrangement "wherein said shield element is disposed on a deflecting element for bending the optical axis, and said shield element has a cover member for covering a part of a deflecting surface of said deflecting element."

In the instant invention, as recited in claim 5, the shield element is disposed on the deflecting element. By this arrangement, the deflection mirror itself may be made compact and the optical path length may be reduced. On the contrary, in the arrangement of Osa, as depicted in Figures 30 and 35B, the shield members 40a, 40b, 74a and 74b are disposed along the light path between the light source and the deflection mirror, or between the deflection mirror and the condenser lens.

In view of the foregoing remarks, Applicant respectfully asserts that Osa does not teach or suggest each feature of independent claim 5, as amended. Thus, Applicant respectfully submits that claim 5 is in condition for allowance as not being anticipated by Osa. Accordingly, Applicant respectfully requests that the rejection of claim 5 under 35 U.S.C. 102(b) be withdrawn.

The Rejection of Claims 1-2, 4, 7-8, and 11-12 under 35 U.S.C. § 102(b)

Claims 1-2, 4, 7-8, and 11-12 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Osa. Applicant thanks the Examiner for the indication of allowable subject matter in claims 6, 10, 13 and 14.

Applicant has amended claims 1 and 2 to differently describe the invention.

Independent claim 1, as amended, recites a stereomicroscope combination that includes an illumination unit including a shield element, a first condenser lens, and a second condenser lens in an arrangement where "the shield element is disposed at a position distant from the first condenser lens and the second condenser lens, and at a side of the light source."

Independent claim 2, as amended, recites a stereomicroscope combination that includes an illumination unit including a shield element and a first condenser lens in an arrangement where "the shield element is disposed at a position distant from the first condenser lens, and at a side of the light source."

In the instant invention, as recited in each of claims 1 and 2, the shield element is disposed at a position distant from the first condenser lens, and at a side of the light source. On the contrary, in the arrangement of Osa, as depicted in Figure 35B, light shield members 74a and 74b are positioned within the condenser lens structure, that is between r4 and r5.

This arrangement of the instant invention is motivated by the fact that, if the shield element is disposed within the first condenser lens, the first condenser lens structure has to be divided into two parts. With a two-part structure for the first condenser lens, the individual parts would have to be moved in accordance with the change-over between the first condenser lens and the second condenser lens.

According to the instant invention, the arrangement of a change-over mechanism between the first condenser lens and the second condenser lens and an adjusting mechanism of the shield member can be arranged without interference with each other, thus resulting in a simpler structure.

Moreover, according to the instant invention, the shield element is disposed on the deflection mirror, so the deflection mirror itself can be made compact, and moreover the optical

path length can be reduced. Accordingly, the apparatus can be made compact in its entirety. On the contrary, in the arrangement of Osa, as depicted in Figure 30, the shield elements are separated from the deflection mirror 24.

In view of the foregoing remarks, Applicant respectfully asserts that Osa does not teach or suggest each feature of independent claim 1, nor independent claim 2, as amended. Thus, Applicant respectfully submits that claims 1 and 2 are in condition for allowance as not being anticipated by Osa. Accordingly, Applicant respectfully requests that the rejection of claims 1 and 2 under 35 U.S.C. 102(b) be withdrawn.

Applicant has cancelled claims 4 and 7-8 without prejudice or disclaimer. In light of these cancellations, the rejection of claims 4 and 7-8 is now moot. Moreover, Applicant respectively submits that claims 11-12 should be allowed for at least the same reasons as discussed above for claims 1 and 2 upon which they respectively depend. Accordingly, Applicant respectfully requests that the rejection of claims 4, 7-8, and 11-12 under 35 U.S.C. § 102(b) be withdrawn.

The Newly Added Claims 15-17

Applicant has added new dependent claims 15 –17 to differently describe the subject matter of the invention. Applicants respectfully submits that the newly added claims are allowable for at least the same reasons as discussed above for independent claims 2 and 5, respectively.

Conclusion

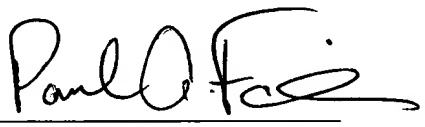
In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of this application, withdrawal of all rejections and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution.

Attached hereto is a marked-up version of the changes made by the current amendment. The attachment is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**."

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.R.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully Submitted,

MORGAN, LEWIS & BOCKIUS LLP

Dated: April 14, 2003 By: 

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 4, and 7-9 are cancelled. Claims 1, 2, 5, 6, 11 and 12 are amended as follows:

1. (Twice Amended) A stereomicroscope comprising:

an illumination unit for illuminating a specimen with light;

a specimen setting board; and

a fitting member for fitting an objective lens, said illumination unit, said specimen setting board and said fitting member being disposed in sequence on an optical axis,

wherein one of a predetermined a low-magnification objective lens and a higher-magnification objective lens than said low-magnification objective lens is selected and fitted as said objective lens to said fitting member,

said illumination unit includes a light source, a shield element for cutting off partially light beam emitted from said light source, first and second condenser lenses for converging the light beam passing said shield element on the specimen, and a mechanism for selecting one of said first and second condenser lenses and disposing said selected condenser lens on the optical axis,

said first condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said low-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element,

said second condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said high-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element, and

wherein the position conjugate to the entrance pupil of said low-magnification objective lens formed by said first condenser lens and the position conjugate to the entrance pupil of said higher-magnification objective lens formed by said second condenser lens are substantially same, and

wherein the shield element is disposed at a position distant from the first condenser lens and the second condenser lens, and at a side of the light source.

2. (Twice Amended) A stereomicroscope comprising:

an illumination unit for illuminating a specimen with light;

a specimen setting board; and

a fitting member for fitting an objective lens, said illumination unit, said specimen setting board and said fitting member being disposed in sequence on an optical axis,

wherein one of a predetermined a low-magnification objective lens and a higher-magnification objective lens than said low-magnification objective lens is selected and fitted as said objective lens to said fitting member,

said illumination unit includes a light source, a shield element for cutting off partially light beam emitted from said light source, a first condenser lens for converging the light beam passing said shield element on the specimen, and a mechanism for moving said first condenser lens on and off the optical axis,

said shield element is disposed in a position of an entrance pupil or in the vicinity of this entrance pupil of said high-magnification objective lens as said objective lens fitted to said fitting member,

said first condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said low-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element, and

the shield element is disposed at a position distant from the first condenser lens, and at a side of the light source.

5. (Amended) A stereomicroscope [according to claim 1] comprising:

an illumination unit for illuminating a specimen with light;

a specimen setting board; and

a fitting member for fitting an objective lens, said illumination unit, said specimen setting board and said fitting member being disposed in sequence on an optical axis,

wherein one of a predetermined a low-magnification objective lens and a higher-magnification objective lens than said low-magnification objective lens is selected and fitted as said objective lens to said fitting member,

said illumination unit includes a light source, a shield element for cutting off partially light beam emitted from said light source, first and second condenser lenses for converging the light beam passing said shield element on the specimen, and a mechanism for selecting one of said first and second condenser lenses and disposing said selected condenser lens on the optical axis,

said first condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said low-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element,

said second condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said high-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element,

wherein said shield element is disposed on a [reflecting] deflecting element for bending the optical axis [is disposed in the position of said shield element of said illumination unit], and

said shield element has a cover member for covering a part of a [reflecting] deflecting surface of said [reflecting] deflecting element.

6. (Amended) A stereomicroscope according to claim 5, wherein said shield element includes a mechanism for increasing and decreasing a covered area of the [reflecting] deflecting surface by feeding out and drawing in said cover member above the [reflective] deflecting surface in order to adjust a quantity of the light beam to be cut off.

11. (Amended) A stereomicroscope according to claim 1, wherein the following conditions are satisfied:

$0.5 < (fH/dH) / (fL/dL) < 6.0$

[$-0.1 < (1/|fL|) / (1/|dL|) < 0.1$] $-0.1 < (1/|fL|) - (1/|dL|) < 0.1$

[$-0.1 < (1/|fH|) / (1/|dH|) < 0.1$] $-0.1 < (1/|fH|) - (1/|dH|) < 0.1$,

where fH is a synthetic focal length of the condenser lens for the high-magnification objective lens,

fL is a synthetic focal length of the condenser lens for the low-magnification objective lens,

dH is a distance along the optical axis from the center of the lens surface of the condenser lens for the high-magnification objective lens to a deflecting surface of a deflecting element disposed in the position of said shield element, and

dL is a distance along the optical axis from the center of the lens surface of the condenser lens for the low-magnification objective lens to the deflecting surface of the deflecting element disposed in the position of said shield element.

12. (Amended) A stereomicroscope according to claim 2, wherein the following conditions are satisfied:

$0.5 < (fL / dL) < 4.0$

$0.5 < (dS / dL) < 4.0$,

where fL is a synthetic focal length of the condenser lens for the low-magnification objective lens,

dL is a distance along the optical axis from the center of the lens surface of the condenser lens for the low-magnification objective lens to a deflecting surface of a deflecting element disposed in the position of said shield element, and

dS is a distance along the optical axis from the specimen surface on the specimen setting board to the shield element.